ABSTRACT

PROCESS MONITORING AND CONTROL USING SELF-VALIDATING SENSORS

A multi-level (hierarchical) process monitoring system comprises a

5 process monitoring unit (14), at a higher level of the system, and a plurality of sensors (SEVA 1, SEVA 2 ... SEVA 36) at a lower level of the system, at least one of the sensors having SEVA capability (self-validating capability), the sensors being adapted to provide respective measurement values of respective process variables to said monitoring

10 unit, said monitoring unit being so arranged as to monitor the outputs of the sensors and to identify any significant apparent change in the process conditions as detected from an overview of said sensor outputs, and on detection of an apparent significant change, to request additional status information from at least one of the SEVA sensor/s to determine whether

15 the apparent change is in reality due to a change in the characteristics of a particular SEVA sensor rather than an actual significant change in the process conditions.

Figures 4 & 7